(19) World Intellectual Property Organization

International Bureau



(43) International Publication Date 31 March 2005 (31.03.2005)

PCT

(10) International Publication Number WO 2005/028425 A2

(51) International Patent Classification⁷:

C07C 257/00

(21) International Application Number:

PCT/EP2004/052201

(22) International Filing Date:

16 September 2004 (16.09.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 03103557.9

25 September 2003 (25.09.2003) EI

(71) Applicant (for all designated States except US): DOMPÉ S.P.A. [—/IT]; Via Campo di Pile, I-67100 L'Aquila (IT).

(72) Inventors: and

- (75) Inventors/Applicants (for US only): ALLEGRETTI, Marcello [IT/IT]; Dompé S.p.A., Via Campo di Pile, I-67100 L'Aquila (IT). CESTA, Maria, Candida [IT/IT]; Dompé S.p.A., Via Campo di Pile, I-67100 L'Aquila (IT). NANO, Giuseppe [IT/IT]; Dompé S.p.A., Via Campo di Pile, I-67100 L'Aquila (IT). BERTINI, Riccardo [IT/IT]; Dompé S.p.A., Via Campo di Pile, I-67100 L'Aquila (IT). BIZZARRI, Cinzia [IT/IT]; Dompé S.p.A., Via Campo di Pile, I-67100 L'Aquila (IT). COLOTTA, Francesco [IT/IT]; Dompé S.p.A., Via Campo di Pile, I-67100 L'Aquila (IT).
- (74) Agent: PIERACCIOLI, Daniele; Dompé S.p.A., Intellectual Property, Via San Martino, 12, I-20100 Milano (IT).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),

European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS. JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN. TD. TG)
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for the following designation US
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for the following designation US
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for the following designation US
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for the following designation US
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for the following designation US
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for the following designation US
- of inventorship (Rule 4.17(iv)) for US only

Published:

 without international search report and to be republished upon receipt of that report

[Continued on next page]

(54) Title: AMIDINES AND DERIVATIVES THEREOF AND PHARMACEUTICAL COMPOSITIONS CONTAINING THEM

(57) Abstract: Amidines and derivatives thereof of formula (I) are described. The process for their preparation and pharmaceutical compositions thereof are also described. The amidines of the invention are useful in the inhibition of chemotaxis of neutrophils induced by IL-8. The compounds of the invention are used in the treatement of psoriasis, ulcerative colitis, melanoma, chronic obstructive pulmonary disease (COPD), bullous pemphigo, rheumatoid arthritis, idiopathic fibrosis, glomerulonephritis and in the prevention and treatment of damages caused by ischemia and reperfusion.

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(19) World Intellectual Property Organization

International Bureau



I (1884 BINALIS) II BININ NAN ABINI BANI BANI BANI BINI IN IN BANI BIRA KARI BIRA KARI BINI BINISH KARA KARA

(43) International Publication Date 31 March 2005 (31.03.2005)

PCT

(10) International Publication Number WO 2005/028425 A3

- (51) International Patent Classification⁷: C07C 257/14, 309/66, C07D 233/10, 273/04, 211/26, 333/24, A61K 31/155, 31/255, 31/381, 31/4164, 31/4453, 31/5395, A61P 17/06
- (21) International Application Number:

PCT/EP2004/052201

(22) International Filing Date:

16 September 2004 (16.09.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 03103557.9

25 September 2003 (25.09.2003) EP

- (71) Applicant (for all designated States except US): DOMPÉ S.P.A. [—/IT]; Via Campo di Pile, I-67100 L'Aquila (IT).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): ALLEGRETTI, Marcello [IT/IT]; Dompé S.p.A., Via Campo di Pile, I-67100 L'Aquila (IT). CESTA, Maria, Candida [IT/IT]; Dompé S.p.A., Via Campo di Pile, I-67100 L'Aquila (IT). NANO, Giuseppe [IT/IT]; Dompé S.p.A., Via Campo di Pile, I-67100 L'Aquila (IT). BERTINI, Riccardo [IT/IT]; Dompé S.p.A., Via Campo di Pile, I-67100 L'Aquila (IT). BIZZARRI, Cinzia [IT/IT]; Dompé S.p.A., Via Campo di Pile, I-67100 L'Aquila (IT). COLOTTA, Francesco [IT/IT]; Dompé S.p.A., Via Campo di Pile, I-67100 L'Aquila (IT).
- (74) Agent: PIERACCIOLI, Daniele; Dompé S.p.A., Intellectual Property, Via San Martino, 12, I-20100 Milano (IT).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ. TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN. TD. TG)
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for the following designation US
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for the following designation US
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for the following designation US
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for the following designation US
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for the following designation US
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for the following designation US
- of inventorship (Rule 4.17(iv)) for US only

[Continued on next page]

(54) Title: AMIDINES AND DERIVATIVES THEREOF AND PHARMACEUTICAL COMPOSITIONS CONTAINING THEM

(57) Abstract: Amidines and derivatives thereof of formula (I) are described. The process for their preparation and pharmaceutical compositions thereof are also described. The amidines of the invention are useful in the inhibition of chemotaxis of neutrophils induced by IL-8. The compounds of the invention are used in the treatement of psoriasis, ulcerative colitis, melanoma, chronic obstructive pulmonary disease (COPD), bullous pemphigo, rheumatoid arthritis, idiopathic fibrosis, glomerulonephritis and in the prevention and treatment of damages caused by ischemia and reperfusion.

WO 2005/028425 A3



Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:

9 June 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.